Safety Advisory Committee
November 6, 2015
1:30 – 3:00 PM

Minutes

Committee Member	Representing	Present
V. Potapenko, M. O. Leimer, J. Willen	Human Resources Advisors	
Blodgett, Paul M.	Environment, Health and Safety Division	X
Bluhm, Hendrik	Chemical Sciences Division	
Broughton, Jeff	Computing Sciences Directorate	
Chernowski, John	Facilities Division	X
Christensen, John N.	Earth Sciences Division	
Dickerhoff, Darryl	Energy Technologies Area	
Franaszek, Stephen	Genomics Division	X
Greiner, Leo	Nuclear Science Division	X
Haber, Carl	Physics Division	
Martin, Michael C.	Advanced Light Source Division	
MacGowan, Betsy	Information Technology Division	
Ravani, Shraddha	Life Sciences Division	
Sauter, Nicholas	Physical Biosciences Division	
Schmid, Andreas	Materials Sciences Division	
Seidl, Peter	Accelerator Technology and Applied Physics Division; SAC Chair	X
Thomas, Patricia M.	Safety Advisory Committee Secretary	X
von der Lippe, Henrik	Engineering Division	X

Others Present: Jim Floyd, Ellen Ford, Mike Kritscher, Quang Le, Martin Neitzel, Marcia Ocon Leimer, Tammy Welcome, Bill Wells, Marty White, Meredith Montgomery

Comments from the Chair – Peter Seidl

The report for the Chemical Sciences Division Environment, Safety, and Health (ESH) Peer Review should be completed by late 2015 or early 2016. It is time to plan the 2016 reviews. Peter Seidl is discussing possible review topics with Jay Keasling for the Biosciences Area and Ramamoorthy Ramesh for Energy Technologies Area.

Safety Culture Management Peer Review – Jim Floyd

Paul Alivisatos commissioned a Safety Culture Peer Review of LBNL management (Lab Director, Deputy Lab Director) and Associate Lab Directors Division Directors, and Division Deputies from research divisions. It was conducted November 4-5, 2015. The review was focused on how LBNL executes safety culture, including leadership behaviors; how expectations are set and evaluated; communication, trust, and staff engagement; and the learning environment. The review was facilitated by Bob McCallum and Kyle Turner, and Kim Jeskie (Oak Ridge). The reviewers were from UC, Sandia, Princeton, Oak Ridge, Argonne, and Brookhaven. There were two days of "engagements" – two-way conversations between LBNL and visiting executives. There were about 20 sessions of about 1 hour each. An out-briefing was provided to Paul Alivisatos and Horst Simon each day. The report is due to LBNL in mid-December.

The Peer Reviewers took home some ideas from LBNL (Brookhaven liked the idea of a Safety Advisory Committee). The reviewers were also interested in our Division Safety Coordinator functions and our Principles of Incident Review. Our safety culture is different from some of the other National Laboratories – it is not as top-down. We need to have strong top-down safety leadership as well as bottom-up participation.

Henrik von der Lippe commented that his discussion focused on communication of Line Management values and expectations and Lessons Learned. Communication of Lessons Learned can be powerful when people are willing to voluntarily discuss their accidents and near-miss experiences.

Martin Neitzel and Marty White participated sessions with their Division Directors. The discussion was about how the Safety Culture Improvement Plan is being implemented. They were asked about communications – how do we balance safety awareness with fear of reporting? What do we worry about most?

Peter Seidl was interviewed about SAC. The peer reviewers were interested in the role of SAC in representing researchers. Most Associate Lab Directors and Division Directors are also active researchers here, which is not the case at some other Labs.

There was a comment that our Integrated Safety Management (ISM) and Safety Culture websites need to be updated. There have been a lot of organization changes since the Safety Culture survey was conducted and not everyone is aware of the Safety Culture Improvement Plan.

It has not been decided yet whether there will be a similar review of non-research divisions. Our Operations functions do not have as good a reputation as our science.

EHS Pipeline – Bill Wells

Revision Type	Documents	Program/Policy	Significance	Status
Aviation Safety Policy -- New	RPM	Aviation	D	Draft completed. Ready for posting.
Confined Spaces Program -- Major Revision	ESH Manual	Confined Spaces	TBD	With editing. Changes reflect current practice. SME works closely with users.
Fall Protection Program Major Revision	ESH Manual	Fall Protection Program	C	With editing. Changes reflect current practice. SME works closely with users.
Pressure Safety – major revision	RPM, ESH Manual	Pressure Safety	C	Major revision; final input from stakeholders, to be put in editing queue.
ORPS & NTS Reporting Quick Guide	RPM	ES&H – Occurrence Rep.; RPM-PAAA Compliance	D	Final SME & Management Review
Laser Safety Program -- Major Revision	ESH Manual	Laser Safety Program	C	Laser safety committee has provided input and recommendations; SME is drafting.
Change to Radiation Safety Program – Conversion to Rad Con Manual format	RPM/ESH Manual/Rad Con Manual	Occupational Radiation Safety	D	Program content limited; used as a pass-through to new Rad Con Manual. Rad Con Manual reviewed and approved through RSC and EHS. Program in queue for editing. No new requirements. Target: 12/15

Revision Type	Documents	Program/Policy	Significance	Status
Elevated Work Surfaces -- Major Revision	ESH Manual	Elevated Work Surfaces Program	C	With editing. Changes reflect current practice. SME working closely with users.
Laser Safety Program -- Major Revision	ESH Manual	Laser Safety Program	C	Laser safety committee has provided input and recommendations; SME is drafting.
Confined Spaces Program – Major Revision	EHS Manual	Confined Spaces	TBD	Initial development by SME

- The Pressure Safety revisions are being reviewed to ensure causes of recent events are addressed.
- The changes to the Radiation Safety Manual are expected to be completed by the end of the year.
- There were questions about how Fire Safety changes are reviewed and processed. Changes to the Regulations and Procedures Manual and the EHS Manual follow the standard processing and review procedures; however, there are also changes to Protective Services standard operating procedures. SAC members have questions about the changes in Hot Work Permit requirements.
- There will also be changes to the Chemical Hygiene and Safety Program coming soon.

Bldg. 70 Overpressure Event – Bill Wells

About two weeks before the SAC meeting, there was an incident involving a pressure vessel inside a furnace in a hood in the battery assembly and testing lab in Bldg. 70. A visiting postdoctoral researcher was doing an experiment involving lithium sulfur battery chemistry. He had been thinking about trying this experiment for about a month, but hadn't found time to do it. Between 7 and 8 PM, the researcher placed materials in a 200-degree furnace, watched it until 9 PM, then went away and left it to run for the next 20 hours. The next morning, the furnace was found destroyed. By noon, the Division Safety Coordinator and EHS were notified. It was a lab-made pressure vessel that was left behind by a previous researcher. The Teflon liner melted. The temperature had reached greater than 325 degrees. It was a 2-part reaction. The chemicals detonated. The blast was contained within the furnace.

The researcher was authorized to work under 4 Activities, which covered general lab hazards but did not address chemical synthesis. The work was done in an adjacent lab. The researcher was authorized to work unsupervised, but not alone. He did not look at the work authorizations before doing the experiment. The researcher attended weekly group and individual meetings, but this experiment was not discussed. Meetings focused on the results of previous work. This experiment was different from the primary work assignment.

Other similar reactors have been inspected and approved. This reaction produced more gas than expected. The vessel was filled too full, with not enough headroom for gas. He had done similar previous work. There was no pressure relief. The chemistry involved hydrolysis of long-chain aliphatic compounds.

An email was sent out to check for extent of condition. We need to address the use of “lab-built” equipment in pressure safety requirements. There will be a full incident report coming. The immediate corrective actions were prompt. The slow reporting of the incident is a concern.

Storm Response Planning – John Chernowski

There has been a lot of interest in LBNL’s preparation for El Nino storms, so John Chernowski has been making the rounds to various management and safety committees to communicate the plan.

We can anticipate possible damage from flooding, power outages, trees falling, landslides, and roof leaks. There were about 10 water intrusions into buildings reported during the November 2nd storm. Historical records indicate the LBNL site has experienced regular landslides. A slide in 1973 moved Bldg. 46 by about a foot and a half. The preparations include storm response plans, weekly weather reports, and three Emergency Operations Center storm response teams.

Our priorities are safety, asset protection, and environmental protection. The Storm Response Plan includes actions before, during, and after major storms. The planning involves Facilities, EHS, Public Affairs, and Information Technology. A team has been conducting walkarounds of anticipated problem areas. Building Managers are providing information about historic problem areas. Over 1,000 site condition issues (including potential storm preparations) have been found, and about half of the problems have been fixed. Back-up generators and equipment and response contractors have been identified. LBNL is coordinating with landlords for our off-site facilities.

Information can be provided through the LBNL website/Today at Berkeley Lab, Facebook, Twitter and the Emergency Status Announcement phone line

regarding site and road conditions. See: https://sites.google.com/a/lbl.gov/lbnl-meteorological-data/weekly-lookaheads_Current

Centennial Bridge, owned by UC, is a concern. LBNL has been shoring up the road near the bridge and improving drainage.

The storm response team will triage and respond to Work Requests when necessary. There are 32 buildings with known water intrusion problems. We are prioritizing and addressing the areas that we can, including covering HVAC units that leak.

The meeting was adjourned at 3:00 PM
Respectfully submitted, Patricia M. Thomas, SAC Secretary